



SEQUENCE LISTING

<110> Swift, Susan E.  
Bogenberger, Jakob M.

<120> RNase PROBE PROTECTION ASSAYS IN SCREENING FOR MODULATORS OF  
IMMUNOGLOBULIN GERMLINE TRANSCRIPTION

<130> A-69332-1/RMS/JJD

<140> US 09/847,960

<141> 2001-05-02

<150> US 60/201,333

<151> 2000-05-02

<160> 24

<170> PatentIn version 3.1

<210> 1

<211> 533

<212> DNA

<213> Artificial sequence

<220>

<223> Germline Ig Alpha-2 probe

<400> 1

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gcacgccgga ggccgcccac tcagcactgc gggccctcca gcagcctgac cagcatcccc      180
gaccagcccc aaggtcttcc cgctgagcct cgacagcacc cccaagatg ggaacgtggt      240
cgtcgcatgc ctggtccagg gcttcttccc ccaggagcca ctcagtgtga cctggagcga      300
aagcggacag aacgtgaccg ccagaaactt cccacctagc caggatgcct ccggggacct      360
gtacaccacg agcagccagc tgacctgcc ggccacacag tgcccagacg gcaagtcggt      420
gacatgccac gtgaagcact acacgaatcc cagccaggat gtgactgtgc cctgcccagt      480
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<210> 2

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<213> Artificial sequence

<220>

<223> Germline Ig Epsilon Probe

<400> 2

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cgcttcagcc tccacacaga gcccatccgt cttccccttg acccgctgct gcaaaaacat	180
tccctccaat gccacctccg tg	202

<210> 3  
 <211> 594  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 1 probe

<400> 3	
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aggaggcagc agagcgaggg aggaggagag gccccaggtg aacggagggg cttgtccagg	180
ccggcagcat caccggagcc cagggcaggg tcagcagtgc tggccgtggg gccctcctct	240
cagccaggac caaggacagc agcctccacc aaggggccat cggctctccc cctggcaccc	300
tcctccaaga gcacctctgg gggcacagcg gccctgggct gcctgggtcaa ggactacttc	360
cccgaaccgg tgacggtgtc gtggaactca ggcgccctga ccagcggcgt gcacaccttc	420
ccggctgtcc tacagtcttc aggactctac tcctcagca gcgtgggtgac cgtgccctcc	480
agcagcttgg gcaccagac ctacatctgc aacgtgaatc acaagcccag caacaccaag	540
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<210> 4  
 <211> 632  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 2 probe

<400> 4	
ccaagccaac agggcaggac acaccagagg ctgactgagg cctccatgac gaccaggctg	60
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caggacccac ctgagctgag gaggcagtag aacgagggag gaggagaggg cccaggtgaa	180
cggaggggct tgtccaggcc agcagcatca ctggagccca gggcagggtc agcagtgtg	240
gccgtggggc cctctctcag ccaggaccaa ggacagcagc ctccaccaag ggcccatcgg	300

tcttccccct	ggcgccctgc	tccaggagca	cctccgagag	cacagcggcc	ctgggctgcc	360
tggtcaagga	ctacttcccc	gaaccggtga	cggtgtcgtg	gaactcaggc	gctctgacca	420
gcggcgtgca	caccttccca	gctgtcctac	agtcctcagg	actctactcc	ctcagcagcg	480
tggtgaccgt	gccctccagc	aacttcggca	cccagaccta	cacctgcaac	gtagatcaca	540
agcccagcaa	caccaaggtg	gacaagacag	ttgagcgcaa	atgttggtgc	gagtgtccac	600
cgtgtcccagc	accacctgtg	gcaggaccgt	ca			632

<210> 5  
 <211> 650  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 3 probe

<400> 5	
acacaccaga	ggctgactga ggcctccagg acgaccgggc tgggagcgtg aggaacatga 60
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aggaggcagc	agagagaggg aggaggagag gccccagggtg aaccgagggg cttgtccagg 180
ccggcagcat	caccggagcc cagggcaggg tcagcagagc tggccgtagg gccctcctct 240
cagccaggac	caaggacagc agcttccacc aaggggcccat cggtcttccc cctggcgccc 300
tgctccagga	gcacctctgg gggcacagcg gccctgggct gcctgggtcaa ggactacttc 360
cccgaaccgg	tgacgggtgtc gtggaactca ggcgccttga ccagcggcgt gcacaccttc 420
ccggctgtcc	tacagtcttc aggactctac tccctcagca gcgtgggtgac cgtgccctcc 480
agcagcttgg	gcacccagac ctacacctgc aacgtgaatc acaagcccag caacaccaag 540
gtggacaaga	gagttgagct caaaacccca cttggtgaca caactcacac atgtcccacgg 600
tgcccagagc	ccaaatcttg tgacacacct cccccgtgcc cacggtgccc 650

<210> 6  
 <211> 705  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 4 probe

<400> 6	
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gggcaggaca caccagagggc tgactgagggc ctccaggacg accgggctgg gagcacgagg	180
aacatgacgg gatgcggcag aaccggccgt ggggtgatgc caggatgggc acgaccgacc	240
tgagctcagg aggcagcaga gcgagggagg aggagaggcc ccaggtgaac ggaggggctt	300
gtccaggccg gcagcatcac cagagcccag ggcaggggtca gcagagctgg ccgtagggcc	360
ctcctctcag ccaggaccaa ggacagcagc ttccaccaag ggcccatccg tcttccccct	420
ggcgccctgc tccaggagca cctccgagag cacagccgcc ctgggctgcc tggtaagga	480
ctacttcccc gaaccggtga cgggtgcgtg gaactcaggc gccctgacca gcggcggtgca	540
caccttcccc gctgtcctac agtctcagg actctactcc ctacgacgagc tggtagaccgt	600
gccctccagc agcttgggca cgaagaccta cacctgcaac gtagatcaca agcccagcaa	660
caccaagggtg gacaagagag ttgagtccaa atatgggtccc ccgtc	705

<210> 7  
 <211> 399  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Alpha-1 proble

<400> 7	
ggcctggggc gggccagggc tccctcccca cagcagccct cttggcaggc agccagacgc	60
ccgtgaggggt ggacctgcca tgagggcctg cacgccggag gccgcccact cagcactgcg	120
ggccctccag cagcctgacc agcatccccg accagcccca aggtcttccc gctgagcctc	180
tgcagcacc c agccagatgg gaacgtgggc atcgccctgcc tgggtccaggg cttcttcccc	240
caggagccac tcagtgtgac ctggagcgaa agcggacagg gcgtgaccgc cagaaacttc	300
ccaccagcc aggatgcctc cggggacctg tacaccacga gcagccagct gaccctgccg	360
gccacacagt gcctagccgg caagtccgtg acatgccac	399

<210> 8  
 <211> 430  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Alpha-2 probe

<400> 8	
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acagcagccc tcttggcagg cagccagacg cccgtgaggg tggacctgcc atgagggcct	120
gcacgccgga ggccgcccac tcagcactgc gggccctcca gcagcctgac cagcatcccc	180
gaccagcccc aaggtcttcc cgctgagcct cgacagcacc cccaagatg ggaacgtggt	240
cgtcgcatgc ctggtccagg gcttcttccc ccaggagcca ctcaagtgtga cctggagcga	300
aagcggacag aacgtgaccg ccagaaactt cccacctagc caggatgcct ccggggacct	360
gtacaccacg agcagccagc tgacctgcc ggccacacag tgcccagacg gcaagtcctg	420
gacatgccac	430

<210> 9  
 <211> 202  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Epsilon probe

<400> 9	
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ggaacccgac agggagccgg acgggccaca ccatccacag gcaccaaag gagcaccg	120
cgcttcagcc tccacacaga gcccatccgt ctcccccttg acccgctgct gcaaaaacat	180
tccctccaat gccacctccg tg	202

<210> 10  
 <211> 370  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 1 probe

<400> 10	
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ctggatgcgg cagagccggc cgtgggggtga tgccaggatg ggcacgaccg acctgagctc	120
aggaggcagc agagcgaggg aggaggagag gccccagggtg aacggagggg cttgtccagg	180
ccggcagcat caccggagcc cagggcaggg tcagcagtgc tggccgtggg gccctcctct	240
cagccaggac caaggacagc agcctccacc aaggggccat cggctcttccc cctggcaccc	300
tctccaaga gcacctctgg gggcacagcg gccctgggct gcctgggtcaa ggactacttc	360
cccgaaccgg	370

<210> 11  
 <211> 387  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 2 proble

<400> 11  
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 caggaccac ctgagctgag gaggcagtag aacgagggag gaggagaggc cccaggtgaa 180  
 cggaggggct tgtccaggcc agcagcatca ctggagccca gggcagggtc agcagtgtg 240  
 gccgtggggc cctctctcag ccaggaccaa ggacagcagc ctccaccaag ggcccatcgg 300  
 tcttccccct ggcgccttgc tccaggagca cctccgagag cacagcggcc ctgggctgcc 360  
 tggtaagga ctacttcccc gaaccgg 387

<210> 12  
 <211> 391  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 3 probe

<400> 12  
 acacaccaga ggctgactga ggcctccagg acgaccgggc tgggagcgtg aggaacatga 60  
 cgggatgggg cagagccagc catggggatga tgccaggatg ggcatgaccg acctgagctc 120  
 aggaggcagc agagagaggg aggaggagag gccccagggtg aaccgagggg cttgtccagg 180  
 ccggcagcat caccggagcc cagggcaggg tcagcagagc tggccgtagg gccctcctct 240  
 cagccaggac caaggacagc agcttccacc aaggggcccat cggctcttccc cctggcgccc 300  
 tgctccagga gcacctctgg gggcacagcg gccctgggct gcctgggtcaa ggactacttc 360  
 cccgaaccgg tgacggtgtc gtggaactca g 391

<210> 13  
 <211> 497  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Germline Ig Gamma 4 probe

<400> 13  
ggccagcacc acatggaagc ccaagcggag ccagcacggg ggaggtgggc agccttcagg 60  
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gggcaggaca caccagaggc tgactgaggc ctccaggacg accgggctgg gagcacgagg 180  
aacatgacgg gatgcggcag aaccggccgt ggggtgatgc caggatgggc acgaccgacc 240  
tgagctcagg aggcagcaga gcgagggagg aggagaggcc ccaggtgaac ggaggggctt 300  
gtccaggccg gcagcatcac cagagcccag ggcaggggtca gcagagctgg ccgtagggcc 360  
ctcctctcag ccaggaccaa ggacagcagc ttccaccaag ggcccatccg tcttccccct 420  
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ctacttcccc gaaccgg 497

<210> 14  
<211> 61  
<212> PRT  
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<220>  
<223> preferred coiled-coil presentation structure

<400> 14

Met Gly Cys Ala Ala Leu Glu Ser Glu Val Ser Ala Leu Glu Ser Glu  
1 5 10 15

Val Ala Ser Leu Glu Ser Glu Val Ala Ala Leu Gly Arg Gly Asp Met  
20 25 30

Pro Leu Ala Ala Val Lys Ser Lys Leu Ser Ala Val Lys Ser Lys Leu  
35 40 45

Ala Ser Val Lys Ser Lys Leu Ala Ala Cys Gly Pro Pro  
50 55 60

<210> 15  
<211> 6  
<212> PRT  
<213> Artificial sequence

<220>  
<223> loop structure

<400> 15

Gly Arg Gly Asp Met Pro

1

5

<210> 16  
 <211> 69  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> preferred minobody presentation structure

<400> 16

Met Gly Arg Asn Ser Gln Ala Thr Ser Gly Phe Thr Phe Ser His Phe  
 1 5 10 15

Tyr Met Glu Trp Val Arg Gly Gly Glu Tyr Ile Ala Ala Ser Arg His  
 20 25 30

Lys His Asn Lys Tyr Thr Thr Glu Tyr Ser Ala Ser Val Lys Gly Arg  
 35 40 45

Tyr Ile Val Ser Arg Asp Thr Ser Gln Ser Ile Leu Tyr Leu Gln Lys  
 50 55 60

Lys Lys Gly Pro Pro  
 65

<210> 17  
 <211> 7  
 <212> PRT  
 <213> Simian virus 40

<400> 17

Pro Lys Lys Lys Arg Lys Val  
 1 5

<210> 18  
 <211> 6  
 <212> PRT  
 <213> Homo sapiens

<400> 18

Ala Arg Arg Arg Arg Pro  
 1 5

<210> 19  
 <211> 10



<212> PRT  
<213> Mus musculus

<400> 19

Glu Glu Val Gln Arg Lys Arg Gln Lys Leu  
1 5 10

<210> 20  
<211> 9  
<212> PRT  
<213> Mus musculus

<400> 20

Glu Glu Lys Arg Lys Arg Thr Tyr Glu  
1 5

<210> 21  
<211> 20  
<212> PRT  
<213> Xenopus laevis

<400> 21

Ala Val Lys Arg Pro Ala Ala Thr Lys Lys Ala Gly Gln Ala Lys Lys  
1 5 10 15

Lys Lys Leu Asp  
20

<210> 22  
<211> 10  
<212> PRT  
<213> Artificial sequence

<220>  
<223> preferred stability sequence

<220>  
<221> MISC\_FEATURE  
<222> (3)..(6)  
<223> "Xaa" at positions 3 to 6 can be any amino acid

<400> 22

Met Gly Xaa Xaa Xaa Xaa Gly Gly Pro Pro  
1 5 10

<210> 23  
<211> 5

<212> PRT  
<213> Artificial sequence

<220>  
<223> linker consensus sequence

<400> 23

Gly Ser Gly Gly Ser  
1 5

<210> 24  
<211> 4  
<212> PRT  
<213> Artificial sequence

<220>  
<223> linker consensus sequence

<400> 24

Gly Gly Gly Ser  
1